IBM

Tivoli® software

IBM Tivoli Netcool/OMNIbus

Highlights

- **Provides a single consolidated operations management solution for a wide range of complex environments across applications, systems, networks and other domains**

- **Automates event deduplication, isolation and resolution, increasing productivity and optimizing service availability**

- **Fast-tracks high-priority events to specific individual operators or to groups, minimizing problem resolution time**

- **Supports current and evolving standards, including ITIL, eTOM, IPv4 and IPv6, and uses FIPS 140-2 approved cryptographic providers**

From fixed and mobile telecommunication services to online trading and Web banking, the uninterrupted availability and performance of commercial business, IT and network services are intrinsically tied to an organization's success.

IBM Tivoli® Netcool®/OMNIbus™ software delivers real-time, centralized supervision and event management for complex IT domains and next-generation network environments. With scalability that exceeds many millions of events per day, Tivoli Netcool/OMNIbus offers round-the-clock management and high automation to help you deliver continuous uptime of business, IT and network services.

Leading enterprises and public sector organizations rely on Tivoli Netcool/OMNIbus to consolidate the management of multiple management domains and tools under a "single pane of glass" view. The software helps make it easier for enterprises to manage problems across IT domains and heterogeneous networks, and thereby reduce costs and improve overall staff productivity.

Leading service provider and military operations use Tivoli Netcool/OMNIbus to manage their complex, next-generation networks and applications in real time, helping optimize the availability of fixed and wireless services. The software helps accelerate time to market of new services, maximize service quality and improve operator efficiency.

Tivoli Netcool/OMNIbus software is available on a variety of platforms, such as Microsoft® Windows Vista®, Sun Solaris and Linux® on IBM System z™. The software is designed to scale from the smallest to the largest, most complex environments, across business applications, virtualized servers, network devices and protocols, Internet protocols, and security and storage devices. Breadth of coverage, rapid deployment, ease of use, high resilience, and exceptional scalability and performance are just some of the reasons leading organizations worldwide are leveraging Tivoli Netcool/OMNIbus to manage the world's largest, most complex environments.

Use highly scalable event processing to manage complex, dispersed environments
Many customers use Tivoli Netcool/OMNIbus to manage tens of millions of events daily. Furthermore, the software can be deployed in a distributed, parallel or hierarchical fashion to support complex operations environments

that span diverse geographic boundaries. Because it couples scalability with a flexible architecture, the software can deliver robust event management to support environments of any size, far beyond those available from other vendor management tools.

Tivoli Netcool/OMNIbus bridges the management gap across traditional IT domains—as well as legacy and next-generation networks—to help organizations improve the end-to-end availability and resiliency of critical business services. As the software detects developing problems from across the service infrastructure in real time, they are processed in IBM Netcool/ObjectServer®, a high-speed, in-memory database.

Through a combination of deduplication, filtering, correlation, including state- and device-based correlation rules, and advanced problem escalation and automations, Tivoli Netcool/OMNIbus can help dramatically reduce events to a manageable volume. For many organizations, this can translate into event reductions from tens of thousands of events down to one.

Automate and accelerate problem resolution

Typically, operators diagnose and resolve one alarm at a time—leaving other alarms sitting in the queue until they have time to focus on them. Tivoli Netcool/OMNIbus helps organizations improve the efficiency of their problem resolution efforts by providing an advanced capability for automating corrective actions to common problems. By allowing operators to run automated
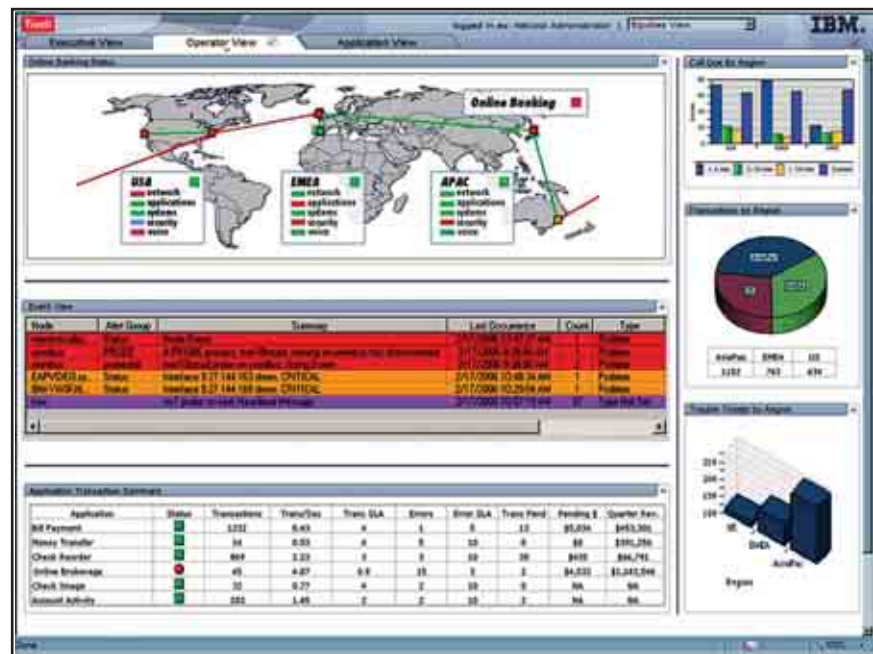
Event management with a customizable, Web-based interface and integrated architecture allows you to achieve end-to-end visualization, navigation, security and reporting (real-time and historical) across Tivoli and third-party management tools for true consolidated operations management in a single pane of glass.

resolution scripts against recurring, predictable problems, your organization can rapidly resolve routine issues and minimize manual intervention.

In addition, through a process control agent, Tivoli Netcool/OMNIbus extends functionality typically available only on UNIX®. The agent can run external commands from Netcool/ObjectServer across mixed UNIX/Windows® environments to define and monitor startup processes for particular servers and restart them if necessary, as well as provide the means to pass messages between systems to execute external scripts.

Tivoli Netcool/OMNIbus also provides accelerated event notification to help minimize potential business impact from outages. This feature enables organizations to fast-track high-priority events to a particular operator or group of operators to alert them that an event has occurred that should be investigated

outside of their normal workflow. Within seconds, the operators can quickly view the specific event, before launching diagnostics and other necessary actions.

The combination of advanced analysis and automations provided by Tivoli Netcool/OMNIbus means staff can quickly home in on the most critical problems and even automate the isolation and resolution of those problems for reduced manual intervention and improved productivity.

Monitor complex service infrastructures

Netcool Probes actively collect business and technology events from thousands of sources in real time. These lightweight agents and applications listen for events and traps, and monitor applications, systems, network and security devices across the business. You can also develop and customize Netcool Probes to support virtually any

kind of "event" from virtually any data source, such as those generated by proprietary business applications, smart devices and many more.

Tivoli Netcool/OMNIbus can monitor thousands of environments, offering built-in intelligence right out of the box. You can also configure thresholds based on your organization's unique requirements to generate alarms based on criteria you define.

Examples of supported environments include, but are not limited to: virtualized server, storage and mainframe environments; infrastructure services and protocols, such as simple network management protocol (SNMP); wireless and wireline network switches, such as Class 5 voice switches and Private Automatic Branch Exchange (PABX) voice switches; and Signaling System 7 (SS7 or C7), GSM, UMTS, CDMA Radio Access Networks, network transport, multiservice components, optical equipment and many more.

In addition, organizations can take advantage of advanced management for Tivoli Netcool/OMNIbus critical components. The software ships with an IBM Tivoli Monitoring agent that allows you to monitor the current health and performance of Tivoli Netcool/OMNIbus

to help ensure high availability. Through this extended self-monitoring, you can set thresholds and generate alerts that effectively serve as an early warning system against potential problems.

Leverage seamless integration of Tivoli products

The breadth of management provided by Tivoli Netcool/OMNIbus is also enhanced and extended through tight integration with the broader Tivoli suite of products. As the core of the IBM consolidated operations management solution, Tivoli Netcool/OMNIbus can consolidate information produced by other IBM sources, such as Tivoli Monitoring, IBM Tivoli Composite Application Manager, IBM Tivoli Enterprise Console®, IBM Tivoli OMEGAMON® and other Tivoli Monitoring products, to provide a single, clear view across IT domains. Integrated visualization and other common capabilities across Tivoli products speed problem solving across operational domains, with integrated drill-down to detailed performance analytics and reporting from Tivoli Monitoring products to help reduce mean time to resolution and increase operator efficiency.

Tivoli Netcool/OMNIbus also integrates closely with IBM Tivoli Network Manager to enable autodiscovery of IP

and transmission networks and to provide topology-based root-cause analysis. This integration allows seamless interchange between event views and topology views of a network to help significantly reduce downtime, promote greater understanding of the impact of network events on service health and increase efficiency in problem resolution. Operations staff can launch in context directly from Tivoli Netcool/OMNIbus events to detailed Tivoli Network Manager topology and root-cause views, as well as other views from the Tivoli Monitoring family, Tivoli Service Request Manager, Tivoli Application Dependency Manager and many more.

Integration with IBM Tivoli Netcool/Impact enables organizations to collect information from external data sources and add that information directly to events to provide greater context and accelerate problem resolutions. For example, events can be enriched to include configuration item owner and contact details, device location, maintenance status, support details and much more. Tivoli Netcool/Impact can also perform a wide range of additional policy-based correlations, automations and even collection and display of data located in multiple data sources.

> *"Tivoli Netcool solutions have enabled BT Global Services to reduce the numbers of raw network alarms that are presented to operators from 17.5 million per month to just 7,000 on one particular network alone. We determine that the Netcool solution has contributed £190,000 per annum in additional profit."*
> — Peter Hascher, Head of CIO NMS, BT Global Services

Extend the value of existing enterprise management tools and operations support systems

Tivoli Netcool/OMNIbus can serve as a "manager of managers" that leverages your existing investments in management systems such as HP OpenView, NetIQ, CA Unicenter TNG and many others. By enabling organizations to manage data from multiple tools under a single console, Tivoli Netcool/OMNIbus helps improve the effectiveness of the entire enterprise operations environment.

Tivoli Netcool/OMNIbus provides integration with operations support systems (OSS) such as inventory, provisioning and billing tools. Consequently, the software can help support Enhanced Telecom Operations Map (eTOM) initiatives.

Tivoli Netcool/OMNIbus also integrates with help-desk and customer relationship management (CRM) applications, such as IBM Tivoli Service Request Manager, Siebel, Peregrine and other vendor applications. It can automatically open and close trouble tickets and enable help-desk personnel to proactively manage problems by seeing the effects of problems on customers and services.

Support the latest standards

Across the world, enterprises, governments and service providers are increasingly making the shift from the IPv4 standard to Internet Protocol Version 6 (IPv6). As an example, IP register and administrator ARIN recently put out a statement advising the Internet community that migration to IPv6 is necessary for any applications that require ongoing availability from ARIN of contiguous IP number resources.[1] A long-time supporter of IPv6, IBM is enabling key products with IPv6 capability to meet the demands of the next-generation Internet. As part of that effort, Tivoli Netcool/OMNIbus software monitors both the current IPv4 and the evolving IPv6 networks to support mixed and pure environments of any type.

In addition, Tivoli Netcool/OMNIbus uses cryptographic providers approved for the Federal Information Processing Standard (FIPS) Publication 140-2, a U.S. government computer security standard used to accredit cryptographic modules. These include IBMJCEFIPS (certificate 376), IBMJSSEFIPS (certificate 409) and IBM Crypto for C (certificate 384) for cryptography.[2] Using approved cryptographic providers for FIPS 140-2 can help significantly ease security audits.

Gain real-time management views

Furthermore, organizations can visualize data in customizable service views by using IBM Tivoli Netcool/Webtop. This Web-enabled interface for Tivoli Netcool/OMNIbus allows viewing and management of high volumes of data processed by Netcool/ObjectServer. Accessible from any Java™-enabled Web browser, Tivoli Netcool/Webtop provides operations staff and executives with "anytime, anywhere" access to service status and actionable information.

Highly customizable, these dashboards offer an array of images, graphical maps, charts, tables and event lists that are tailored according to your requirements—showing the "big picture" of a service or the specific devices that may be causing a problem. Tivoli Netcool/Webtop provides executives, line-of-business managers, operations personnel and customers with real-time, customizable views of events, service health and key performance indicators, for more effective decisions.

Integrate visualization and reporting across IBM and third-party tools

Tivoli Netcool/OMNIbus provides "single pane of glass" visibility to help leverage and extend the native capabilities provided by the Tivoli common portal interface with cross-domain, multivendor event management, enabling centralized visualization and reporting of real-time and historical data across both IBM and third-party tools. This information is consolidated in an easy-to-use role-based portal interface—accessed through single sign-on—so that all the monitoring data and management information needed can be retrieved from one place. Tivoli Netcool/OMNIbus Active Event Lists are available alongside the broader context of your operations management tools, putting detailed event, network, server, application, transaction and other views right at your fingertips. Personalized workspaces based on user roles and responsibilities help improve productivity by sharing information and placing it in context.

Tivoli Netcool/OMNIbus at a glance		
Supported platforms:		
• IBM AIX® 5.2 — IBM iSeries®/ IBM pSeries®	• SUSE (SLES) 10.0 — x86-32	• Windows Server 2008 Enterprise Edition — x86-32
• AIX 5.3 — iSeries/pSeries	• SUSE (SLES) 10.0 — x86-64	• Windows Server 2008 Enterprise Edition — x86-64
• AIX 6.1 — iSeries/IBM System p™	• SUSE (SLES) 10.0 — zSeries/System z	• Windows Server 2008 Standard Edition — x86-32
• HP-UX 11i v2 — PA-RISC	• SUSE (SLES) 9.0 — x86-32	
• HP-UX 11i v3 — PA-RISC	• SUSE (SLES) 9.0 — x86-64	• Windows Server 2008 Standard Edition — x86-64
• Red Hat Desktop 4.0 — x86-32	• SUSE (SLES) 9.0 — zSeries/System z	• Windows Vista — x86-32 (desktop component only)
• Red Hat Desktop 4.0 — x86-64	• Windows Server® 2003 Datacenter Edition — x86-32	
• Red Hat Desktop 5.0 — x86-32		• Windows Vista — x86-64 (desktop component only)
• Red Hat Desktop 5.0 — x86-64	• Windows Server 2003 Datacenter Edition — x86-64	
• RHEL 4 — x86-32		• Windows XP Professional — x86-32 (desktop component only)
• RHEL 4 — x86-64	• Windows Server 2003 Enterprise Edition — x86-32	
• RHEL 4 — IBM zSeries®/System z	• Windows Server 2003 Enterprise Edition — x86-64	• Windows XP Professional — x86-64
• RHEL 5 — x86-32		• VMware ESX 3.0.1 Server running Red Hat EL 4.0 environment (desktop component only)
• RHEL 5 — x86-64	• Windows Server 2003 Standard Edition — x86-32	
• RHEL 5 — zSeries/System z		
• SLED 10 — x86-32	• Windows Server 2003 Standard Edition — x86-64	
• SLED 10 — x86-64		
• Solaris 10 — SPARC	• Windows Server 2003 Standard x64 Edition — x86-64	
• Solaris 9 — SPARC		

Tivoli Netcool/OMNIbus also provides integration with IBM Tivoli Data Warehouse and the Tivoli common reporting engine. All data collected by Tivoli Netcool/OMNIbus—either through monitoring or from IBM and third-party tools—can then be easily managed in a single, integrated, historical reporting solution. Operations staff can have the real-time and historical intelligence they need to identify developing trends and potential "hot spots" for proactive intervention before larger problems occur, without the need to jump between different management tools and reporting systems.

Leverage enhanced support features and language packs

IBM continues to enhance Tivoli Netcool/OMNIbus support features. These include IBM Support Assistant, which delivers advanced remote help for administrators. Available throughout IBM Software Group, IBM Support Assistant collects critical product information, saving valuable time.

Tivoli Netcool/OMNIbus also supports language packs for key languages, including Simplified Chinese, Traditional Chinese, Japanese and Korean.

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For more information

To learn more about how Tivoli Netcool/OMNIbus helps you consolidate operations management to enable real-time business and service assurance, contact your IBM representative or IBM Business Partner, or visit **ibm.com**/tivoli

About IBM Tivoli service management software

Tivoli software offers a service management platform for organizations to deliver quality service by providing visibility, control and automation—visibility to see and understand the workings of their business; control to effectively manage their business, minimize risk and protect their brand; and automation to optimize their business, reduce the cost of operations and deliver new services more rapidly. Unlike IT-centric service management, Tivoli software delivers a common foundation for managing, integrating and aligning both business and technology requirements. Tivoli software is designed to quickly address an organization's most pressing service management needs and help proactively respond to changing business demands. The Tivoli portfolio is backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli clients and Business Partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world—visit www.tivoli-ug.org

[1] See http://www.arin.net/announcements/archives/20070521.html

[2] The certificates are listed on the NIST Web site at http://csrc.nist.gov/cryptval/140-1/1401val2004.htm

TAKE BACK CONTROL WITH **Tivoli**.